

## ABSTRACT

The present invention is directed to methods to decrease body weight and/or body fat in an animal, e.g., in the treatment of overweight or obese patients (e.g., 5 humans or companion animals), or as a means to produce leaner meat in food stock animals (e.g., cattle, chickens, pigs), and methods to treat eating disorders (e.g., binge eating disorder and bulimia) in patients in need thereof by administering a PDE9 inhibitor. The invention also features biological tools to further study PDE9 function, i.e., genetically-modified mice and animal cells having a PDE9 gene 10 disruption.